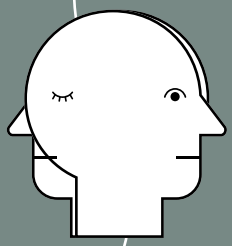
The Shades of Truth Study Series - Visual Report



the shades of truth study series

What's A Research Award for Social Science and Misinformation

Preface

Online misinformation has become a central issue in the fight against COVID-19. This study series focuses on how we, social media users, interact with information that arrives on our screens in the midst of trudging a pandemic. We investigate knowledge and scientifically accurate information effect beliefs around misinformation. And discover factors that shape behaviours around users correcting each other on WhatsApp.

We hope that the findings of this report and our research will strengthen the efforts of health agencies and WhatsApp in designing interventions to manage the infodemic.

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Background Context

The infodemic begins

Dec 2019

China identifies novel coronavirus after a cluster of pneumonia cases from Wuhan in Hubei province

Jan 2020

Unknown virus creates information vacuum that triggers a misinformation outbreak on global social media platforms including WhatsApp

Mar 2020

World Health Organization warns against "infodemic" before declaring COVID-19 a pandemic

Definition

(Information Disorder Framework)

Spectrum of misinformation

Impact of misinformation

CONFUSION

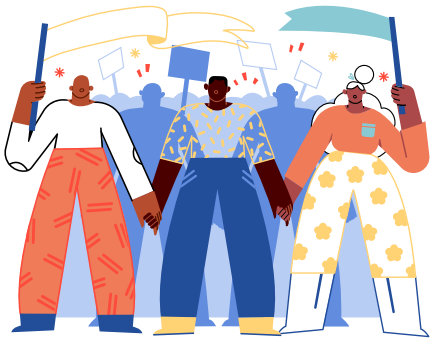
Public unsure about what information to believe or ignore

VIOLENCE

Conspiracy theories lead to attacks on 5G towers

DISCRIMINATION

Discriminatory attacks on minority communities because of reference to COVID-19 as "Chinese Virus"



WHO initiates ACTIONS

- Platform
- Collaborations with social media companies to block misinformation
- Global infodemic management consultation
- WhatsApp Tiplines

the rise of infodemic

Factors affecting psychological responses to misinformation

Shades of truth

Previous research has shown that users' and audiences' response to messages could vary based on the level of detail, source and factual content.

But we understand little about the psychological response of WhatsApp users to misinformation that arrives in various hues or shades of truth.

Misinformation

- Completely false
- Partially false
- Full Truth

Corrective information

Misinformation

- Fact-checking
- Appeals to credibility
- Source of corrective information
- Warnings of possible presence of misinformation
- Alternative explanation
- Credibility of the misinformation itself
- Corrections with factual elaboration
- Social discrediting of misinformation source

Several interventions to combat online health misinformation have been tested and launched by academics, data literacy entrepreneurs and social media companies.

Linking to personal experiences and health literacy

Misinformation

- possess a greater confidence in false memories
- demonstrate a tendency to forget the source of the original misinformation
- possess reduced cognitive functioning and abstract reasoning
- exhibit limited capabilities to differentiate between various 'shades of truth'

Misinformation pollutes our memory effectively making our memory malleable

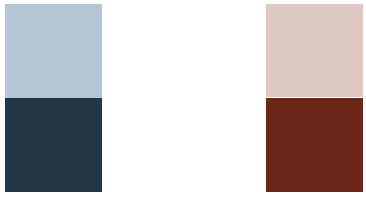
Study Locations

UK and Brazil have the highest number of COVID-19 cases in Europe and South America respectively.

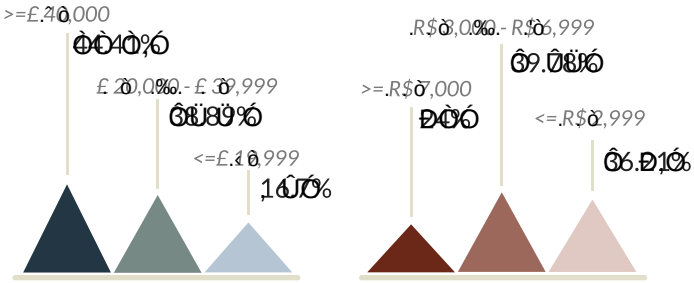
WhatsApp is among the most popular social media apps in both countries, however it is also the preferred source of misinformation.

Participant profile

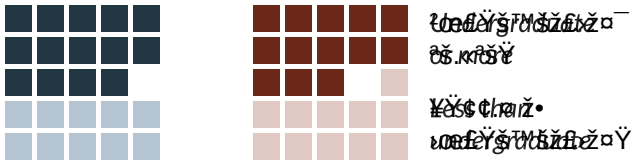
Age



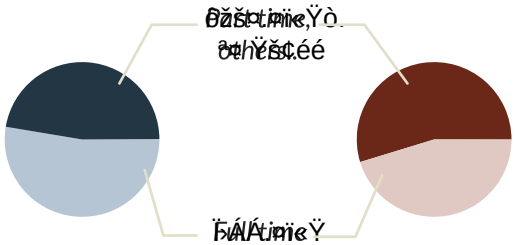
Annual Income



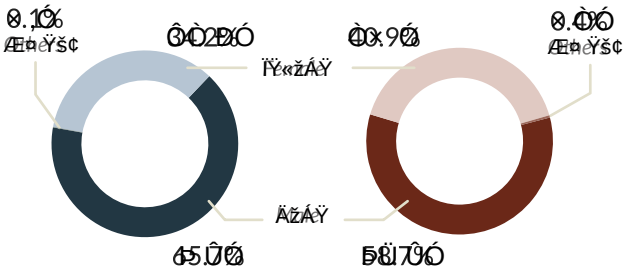
Education



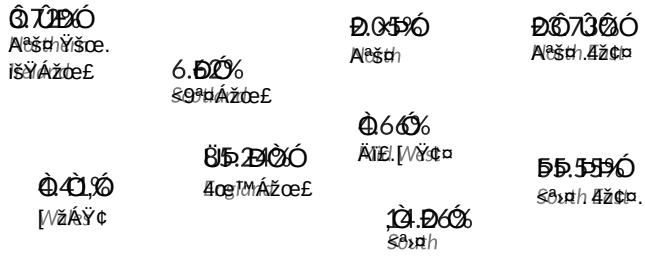
Employment



Gender



Geography

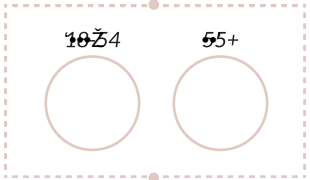


Participants in both the UK and Brazil were recruited through Qualtrics' panel of survey respondents

United Kingdom and Brazil

How is the effectiveness of corrective messages affected by different types of misinformation that have been exposed to?

Participants



18-34 years
UK
Brazil

55+ years
UK
Brazil

Participants were then randomly assigned to one of three messages based on the 'shades of truth'

Exposure 1

Stimuli: Misinformation type or 'shades of truth'

- full falsity
- partial falsity
- full truth

The stimuli were created by extracting specific elements from previous WhatsApp messages already in circulation in Brazil and the UK

Misinformation features embedded in all three stimuli:

- false attribution to a health authority (WHO)
- garlic as a claimed cure

Exposure 2

Stimulus: Corrective information

All participants were then presented with a corrective message in the form of COVID-19 myth-busting information from WHO's EPI-WIN online resource website

Main Outcomes

Misinformation Belief

Message Credibility

Intention-to-Share

Age and Shades of Truth

INSIGHTS

Message Information

Message Information

Message Information

In addition to prior exposure, how do emotional and cognitive factors affect users' digital behaviours in relation to misinformation?

Predictors

Cognitive Response

Emotional Response

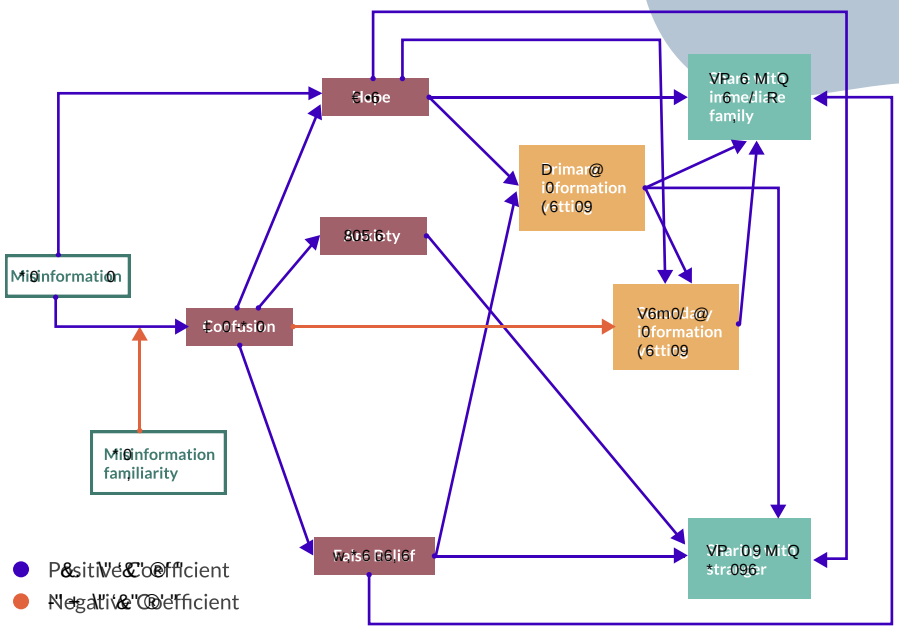
- [illegible]
- [illegible]
- [illegible]

Information Setting

Main Outcomes

Information Vetting and Sharing

CONCEPTUAL MODEL



Conceptual model describing the effects of emotions on information vetting and sharing behaviors

Individuals with higher misinformation beliefs and hope are less likely to share the information with others

Anxiety functions as a trigger for people to share the information with strangers via social media

Confusion inhibits people from sharing the misinformation with their immediate family members via WhatsApp

Linkage between emotions and sharing behavior

Confusion and hope, which in turn, could influence user behaviors around information vetting and sharing

Individuals may be motivated to take a two-stage vetting process, first assessing the information itself (primary vetting) and then judging their own assessments (secondary vetting)

Secondary vetting is a subjective vetting process that individuals are more confident with, which triggers their intentions to share misinformation with immediate family

Linkage between misinformation veracity and sharing behavior

What types of social correction behaviors do WhatsApp users engage in? What are the psychological and demographic factors that affect these behaviors?

Cross-sectional study

Focuses on the role of and extent to which WhatsApp users demonstrate the tendency to correct their social peers who might deliberately or unwittingly share COVID-19 misinformation on this popular messaging platform

Independent variables

Demographic factors

- Age
- Gender
- Household income
- Education

Health beliefs

- Perceived severity to COVID-19
- Perceived susceptibility to COVID-19

Misinformation factors

- Misinformation exposure
- Message credibility

Technological factors

- Information seeking norms
- Critical message evaluation
- Time spent discussing COVID-19

Main DV: Correction behaviors

Active feedback to group

Active feedback to sender

Passive or no feedback

Social Correction Behaviour

INSIGHTS

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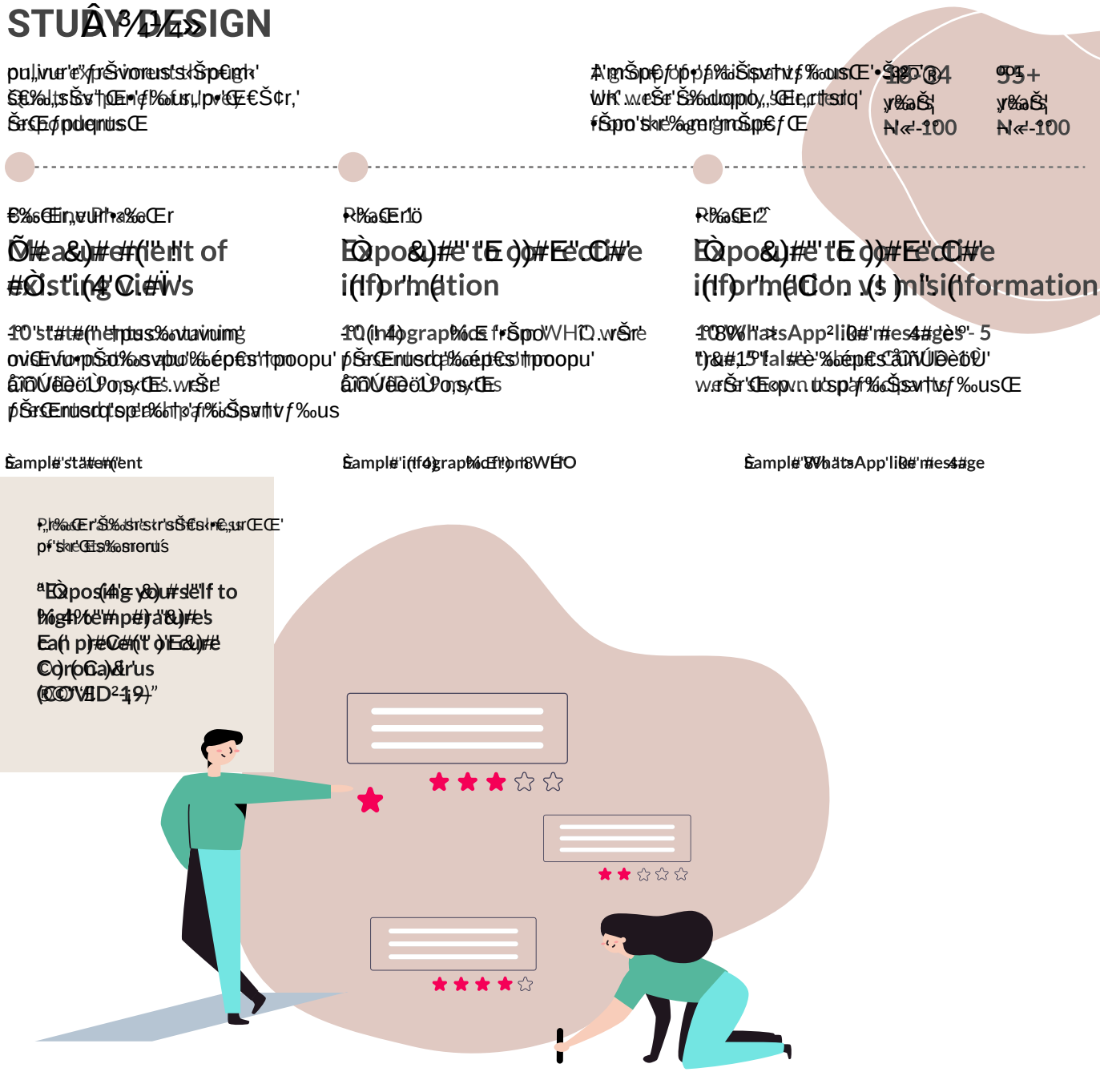
How effective are corrective information interventions when they are followed by misinformation?

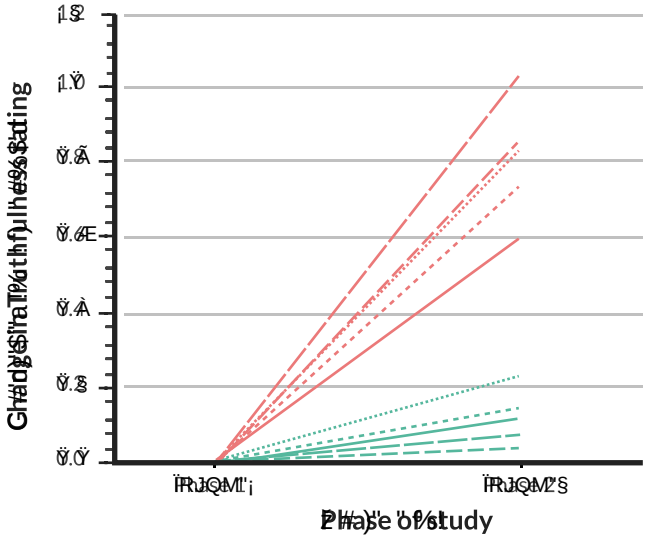
STUDY DESIGN

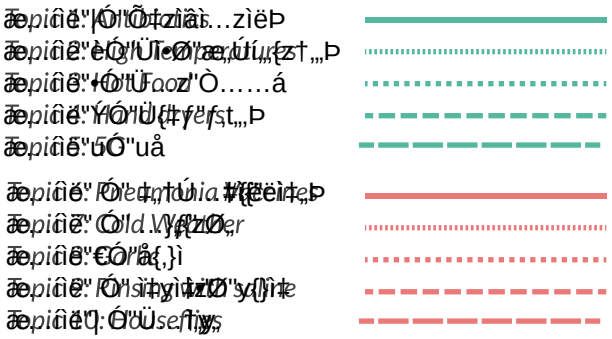


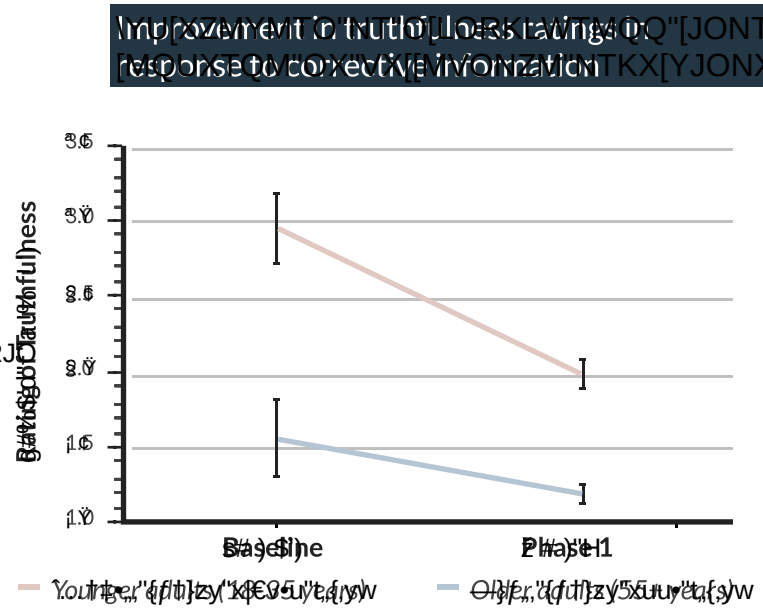
Main Outcomes

Memory and Misinformation

INSIGHTS







Implications

for Public Health Communication